REMARKS

Entry, reconsideration, and allowance are respectfully requested.

Claim 5 is amended to remove a number reference in parentheses.

Claims 1-29 remain rejected under 35 USC §103 as being unpatentable over Besset in view of Yuen. The rejection is respectfully traversed.

Besset discloses a method of managing a data buffer comprising a queue of consecutive segments of data packets in a base station system of a communications system. See the Abstract; column 1, lines 6-8; column 4, lines 33-37. A base station system identifies a complete data packet (AAL2 SDU) based on a user-to-user interface (UUI) field included in CPS packet segments. See column 2, lines 59-63; column 5, lines 10-15, 26-29, 40-43; column 6, lines 1-20; column 9, lines 27-30; column 10, lines 31-42. The base station system discards the identified complete data packet. See column 4, lines 41-43; column 5, lines 19-23, 57-61; column 6, lines 8-20.

Besset fails to disclose that the base station system compares a size of a data packet segment with a size of a next consecutive data packet segment in the buffer. In the office action, the Examiner refers to column 2, lines 4-12 as allegedly disclosing this feature. This section of Besset only specifies that the AAL2-layer comprises a number of sub layers: SSSAR. There is no disclosure of any comparison of data packet segment sizes in this section.

In response to the arguments made in the previous amendment, the Examiner refers to column 8, lines 51-56 of Besset. Here, Besset mentions that the size of an incoming CPS packet is defined by reading the LI field of the data packet header to then define the packet size to be Li+1+3 octets. If the buffer is in a state of congestion, the size of the incoming CPS packet is added to the parameter CPS_CO representing the current filling level of the buffer. The resulting

value, representing the total filling level of the buffer if the CPS packet is entered the buffer, is then compared to the CPS_Low_Threshold.

Thus, Besset discloses that the size of a CPS packet (LI+1+3) is added to the current buffer filling level (CPS_CO), and the result is compared to two thresholds 42 and 44. But this is not the same as comparing the size of a data packet segment to the size of a next consecutive data packet segment. The only comparison disclosed in Besset is between a buffer filling level, if the CPS packet will be added to the buffer, with a threshold. There is no comparison of sizes of two consecutive data packet segments.

In addition, the buffer filling level CPS_CO represents the current buffer filling level regardless of what the buffer contains. This means that CPS packets present in the buffer but belonging to another complete SDU than the incoming CPS packet will be included in the CPS_CO parameter.

The office action also alleges that "the algorithm (see column 9, lines 27-47) will obviously compare the current packet size and previous packet size to determined thresholds if the packet size consisted of only 1 segment size." This allegation is not supported by this text. Besset explains that it is first determined whether the CPS packet is the first one of an AAL2 SDU frame by investigating the UUI field of the previous CPS packet. If this is the case, then it is investigated whether the buffer is in congestion. No congestion means that the CPS packet can be added directly to the buffer without further investigation. The CPS_CO parameter is updated with the size of the current CPS packet.

If the frame only consists of a single segment as quoted above from the office action, then the size of this single segment is still added to the parameter CPS_CO, and the result is compared to a threshold in the case of congestion. If there is no congestion, then no comparison

is performed. In such a case, it is also the updated parameter CPS_CO that is compared to a threshold—there is no comparison of sizes of consecutive data packet segments.

Accordingly, Besset only discloses the comparison of a total buffer filling level with a threshold. Besset fails to teach comparing the sizes of consecutive data packet segments. In the body of the rejection, the office action argues that Besset discloses that the base station system identifies a complete data packet in the buffer based on the claimed size comparison pointing to column 10, lines 36-42. Applicant respectfully disagrees. This section of Besset reads the UUI field of a CPS packet and uses the UUI field value to decide whether the CPS packet is the last packet of the AAL2 SDU frame or if more data packets follow. Thus, if the UUI field has value 27, at least one other CPS packet follows to complete the AAL2 SDU frame. On the other hand, a UUI field value of 26 indicates that the current CPS packet is the last packet of the frame.

Besset identifies a complete AAL2 SDU frame based on header data, i.e., the UUI field, of the CPS packets. But this is not a teaching of identifying a complete AAL2 SDU frame based on comparison of the sizes of consecutive data packet segments. Regardless of whether the AAL2 SDU frame comprises one or more CPS packets, a complete frame is identified based on the UUI field data and not based on any comparisons of data packet segment sizes.

Besset further discloses that the base station system discards the identified complete data packet (column 4, lines 41-43; column 5, lines 19-23, 57-61; column 6, lines 8-20). However, discarding the identified complete data packet according to Besset is performed by never entering the CPS packets belonging to the AAL2 SDU frame in the buffer. Besset therefore does not disclose that the complete AAL2 SDU frame is discarded from the buffer, because in the buffer saturation state, the AAL2 SDU frame will never enter the buffer.

So Besset does not disclose at least the following three features recited in claim 1:

1) the base station system compares a size of a data packet segment with a size of a next consecutive data packet segment in the buffer;

2) the base station system identifies a complete data packet in the buffer based on the comparison; and

3) the base station system discards the identified data packet segment from the buffer.

Yuan relates to buffer management and discloses discarding or entering data in a buffer of a relay switch. See abstract; column 1, lines 63-65; column 2, lines 11-18 and 49-53. Yuan describes segmenting data packets into a number of cells. See column 1, lines 16-17; column 3, lines 13-18. The relay switch identifies the cells belonging to a complete data packet based on information included in the header of the cells. See column 3, lines 62-67; column 4, lines 30-33. The first cell of a data packet contains information in its ATM cell that identifies it as the first cell of a data packet (column 3, lines 62-67). Remaining cells belonging to the same data packet include a respective decrementing counter field in the header CRC field or in controller 420 that explicitly conveys the number of remaining cells in the data packet (column 4, lines 30-38).

After receiving the first cell of a data packet, Yuan assesses whether the queuing buffer can store all the cells for this data packet. See the Abstract and column 2, lines 8-18. If it can, the first cell and following cells belonging to the same data packet are entered in the buffer; otherwise, the first cell and the rest of the cells of the data packet are discarded and never enter the buffer. See abstract; column 2, lines 8-18; column 3, lines 44-46; column 5, lines 46-51; and column 6, lines 6-8 and 14-15.

Yuan therefore does not disclose discarding an identified complete data packet from a buffer as alleged in the office action. In contrast, Yuan merely prevents a complete data packet segment from entering the buffer. As a result, the complete data packet segment cannot be discarded from the buffer because it was never stored in the buffer.

Combining Besset and Yuan results in an approach that handles a segmented data frame by conditionally storing segments in a data buffer. That combination uses header information to identify the first segment and following segments belonging to the same data packet and to determine whether to enter the segments in the buffer or discard all the segments of the data packet prior entry in the buffer.

Both Besset and Yuan identify segments by retrieving header information, i.e., the CPS UUI field in the header of CPS packets to identify a complete AAL2 SDU frame versus first cell identifier of ATM cell header (Besset) and decrementing counter field in the header CRC field (Yuan). Consequently, neither reference discloses or suggests comparing sizes of data packet segments in order to identify a complete data packet. To the contrary, the combined teachings of Besset and Yuan direct the person skilled in the art to use header information in order to identify the data packet segments belonging to a complete data packet—a different approach from what is claimed.

Additionally, both Besset and Yuan disclose deciding whether to enter segments in a buffer or discard segments <u>prior to entry in the buffer</u>. Thus, the combination fails to teach that a complete data packet is discarded from a buffer that already contains the segments of the data packet.

In summary, the combination of Besset and Yuan fails to disclose the following technical features of the invention as defined in claim 1:

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1) the base station system compares a size of a data packet segment with a size of a next consecutive data packet segment in the buffer;

2) the base station system identifies a complete data packet in the buffer based on the comparison;

3) the base station system discards the identified data packet segment from the buffer.

Similar features in claims 5, 10, and 20 are missing from the combination of Besset and Yuan.

The application is in condition for allowance. An early notice to that effect is earnestly solicited.

Respectfully submitted,

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